REMARKS

Reconsideration of the above-identified application is respectfully requested in view of the foregoing amendments and the following remarks.

The Pending Claims

Claims 1-28 are currently pending. Claims 1-28 are directed to direct-to-plate methods of lithographic printing with a reusable substrate having a hydrophilic surface.

The Amendments to the Claims

The claims have been amended to more particularly point out and distinctly claim the invention. In particular, claim 1 incorporates the subject matter of claim 8, thereby reciting that the cleaning solution comprises an aqueous emulsion of an alcohol and a cyclic compound having at least one double bond. Claim 8 has been cancelled, without prejudice.

As well, claims 5, 11-13, and 18 have been amended to delete the words "such as a cloth, a rotating brush or by jetting water or a volatile medium." New claims 29-33 have been added, incorporating the subject matter deleted in claims 5, 11-13 and 18. No new matter has been added by way of the amendments.

Summary of the Office Action

Claims 5, 11-13, 17, 18, 24, 27 and 28 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1-7 and 9-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vermeersch et al. (EP 802,457) in view of Nussel et al. (U.S. Patent No. 5,816,161) and Timpe et al. (U.S. Patent No. 5,698,360). Claims 8 and 21-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vermeersch et al. in view of Nussel et al. and Timpe et al., further in view of Walls (U.S. Patent No. 4,351,895).

Discussion of the Indefiniteness Rejections

The claims have been amended to no longer recite the "such as" clause cited by the Office, in claims 5, 11-13 and 18. Claims 17, 24, 27 and 28 depend from the one of the

amended claims, and do not recite the "such as" clause. As such, the indefiniteness rejection is considered moot, and should be withdrawn.

Discussion of the Obviousness Rejections

The subject matter of claim 8 has been incorporated herein into independent claim 1. Thus, the only remaining obviousness rejection would be predicated on Vermeersch et al. in view of Nussel et al. and Timpe et al., further in view of Walls, which was the only rejection set forth in the Office Action against claim 8. However, the rejections of the claims premised on Vermeersch et al. in view of Nussel et al. and Timpe et al., and further in view of Walls, is considered improper, inasmuch as the cited references, even in combination, fail to teach or fairly suggest the present inventive methods.

As recognized by the Office, Vermeersch et al., Nussel et al. and Timpe et al. do not describe or suggest an aqueous emulsion of an alcohol and a cyclic compound having at least one double bond. Walls is similarly deficient. Walls only discloses cleaning *solutions* (*see, e.g.*, Walls, Abstract at line 5, and col. 2, line 9, reciting an "aqueous solution"), as compared to the aqueous *emulsions* recited in the amended claims. For example, at column 2, lines 63-64, Walls states that "The composition also contains a *water miscible solvent*, preferably one having a high boiling point." Walls further describes "water miscible" as meaning that "a fully stable solution [of the solvent with water] is realized." (Walls at column 3, lines 1-2). The examples in Walls are directed to solutions comprising cyclohexanone, which is known in the art to be water soluble (*see, e.g.*, C.R.C. Handbook of Chemistry and Physics, 60th Ed. (1979) at C-80, C-264, appended hereto as Attachment A). Finally, Walls describes the claimed solution as being thick *clear* solutions (Walls, col. 4, line 65 (Example 2)). As such, Walls teaches away from the *emulsions* recited in the pending claims, which are milky liquids.

Therefore, in view of the failure of Walls to remedy the deficiencies of Vermeersch et al., Nussel et al. and Timpe et al. with respect to the claimed invention as discussed above, Applicants respectfully request the rejections under 35 U.S.C. § 103 (a) be withdrawn.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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Date: April 30, 2004

ATTACHMENT A

In re Appl'n of Verschueren et al.
Application No. 10/016,960

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[α]	specific rotation
δ	slightly
>	above, more than
<	below, less than
∞	soluble in all proportions
*	name approved by the International Union of Chemists (I.U.C.)[1]
Ω	IR, or UV, or NMR spectra referenced
?	unknown
aa	acetic acid
abs	absolute
ac	acid
Ac	acetyl
ace	acetone
al	alcohol[2]
alk	alkali
Am	J. Am. Chem. Soc.
Am	amyl (pentyl)
amor	amorphous
anh	anhydrous
aqu	aqueous
as	asymmetric
atm	atmospheres
b	boiling
B	Beilstein
Ber	Chem. Ber.
bipym	bipyramidal
bk	black[3]
bl	blue[3]
br	brown[3]
bt	bright
Bu	butyl
bz	Benzene
C	Chem. Abs.
c	percentage concentration
ca	about (circa)
chl	chloroform
co	columns
col	colorless
con	concentrated
cor	corrected
cr	crystals
cy	cyclohexane
d	decomposes
D	line in the spectrum of sodium (subscript)
D, d	dextro[4]
δd	slight decomposition
dil	diluted
diox	dioxane
distb	distillable
dk	dark
Dl, dl	racemic[4]
dlq	deliquescent
DMF	dimethyl formamide
E	Elsevier's
eff	efflorescent
Et	ethyl
eth	ether[5]
exp	explodes
extrap	extrapolated
fl	flakes
flr	fluorescent
fr	freezes
fr. p.	freezing point
fum	fuming
gel	gelatinous
gl	glacial
gold	golden
gr	green[3]
gran	granular
gy	gray[3]
h	hot
H	Helv. Chim. Acta
hex	hexagonal
hp	heptane
htng	heating
hx	hexane
hyd	hydrate
hyg	hygroscopic
i	insoluble
i-	iso-
ign	ignites
in	inactive
inflam	inflammable
infus	infusible
irid	iridescent
iso	isooctane
J	J. Chem. Soc.
JOC	J. Org. Chem.
L, l	levo[4]
la	large
lf	leaf
lig	ligroin
liq	liquid
lo	long
lt	light
m	melting
m-	meta-
M	molar (concentration)
M	Merck Index, 7th Edition
mcl	monoclinic
Me	methyl
met	metallic
micr	microscopic
min	mineral
mod	modification
mut	mutarotatory
n	normal chain, refractive index
N	normal (concentration)
N	nitrogen[6]
nd	needles
o-	ortho-
oct	octahedral
og	orange[3]
oos	ordinary organic solvents
or	or
ord	ordinary
org	organic
orh	orthorhombic
os	organic solvents
p-	para-
pa	pale
par	partial
peth	petroleum ether
pk	pink[3]
Ph	phenyl
pl	plates
pr	prisms
Pr	propyl
Prak	J. Prak. Chem.
purp	purple[3]
pw	powder
Py	pyrimidene
pym	pyramids
rac	racemic
rect	rectangular
red	red
res	resinous
rh	rhombic
rhd	rhombohedral
s	soluble
s	secondary[7]
sc	scales
sec	secondary[7]
sf	softens
sh	shoulder
silv	silvery
sl	slightly (δ)
so	solid
sol	solution
solv	solvent
sph	sphenoidal
st	stable
sub	sublimes
suc	supercooled
sulf	sulfuric acid
sym	symmetrical
syr	syrup
t	tertiary[7]
ta	tablets
tcl	triclinic
tert	tertiary[7]
Tet	Tetrahedron
tetr	tetragonal
THF	tetrahydrofuran
to	toluene
tr	transparent
trg	trigonal
undil	undiluted
uns	unsymmetrical
unst	unstable
v	very
vac	vacuum
var	variable
vap	vapor
vic	vicinal
visc	viscous
volat	volatile or volatilises
vt	violet[3]
w	water
wh	white[3]
wr	warm
wx	waxy
ye	yellow[3]
xyl	xylene

1 For I.U.C. rules of nomenclature see General Index.
2 Generally means ethyl alcohol.
3 The abbreviation of a color ending in "sh" is to be read as ending with the suffix "-ish," *e.g.*, grsh means greenish.
4 *D, L* generally mean configuration and *d, l* generally mean optical rotation, but there are many examples in the chemical literature for which the meaning of these symbols is ambiguous and/or interchangeable.
5 Generally means diethyl ether.
6 *N* indicates a position in the molecule.
7 *s* and *sec*, or *t* and *tert*, are used as convenient.

No.	Name	Synonyms and Formula	Mol. wt.	Color, crystalline form, specific rotation and λ_{max} (log ε)	m.p. °C	b.p. °C	Density	n_D	Solubility						Ref.
									w	al	eth	ace	bz	other solvents	
	Cyclohexanol														
Ω c749	—,—(*trans*)*	$C_6H_{11}ClO$. *See* c742	134.61	pr (bz-lig)	29	93^{26}	1.146_4^{16}	1.4899^{20}	...	v	s	...	s	chls	B6²,12
Ω c750	—,4-chloro-(*trans*)*	$C_6H_{11}ClO$. *See* c742	134.61	pl (*cy*)	82–3	106^{14}	1.14351^{17}	1.4930^{17}	...	s	s	...	s	chls	B6¹,12
c751	—,3-(dimethyl-amino)-*	$C_8H_{17}NO$. *See* c742	143.23	.....	73	231^{740} $126–7^{22}$	0.9766_{25}^{25}	1.4852^{20}	...	s	...	...	...	.....	B13¹,159
Ω c752	—,1-ethyl-*	$C_8H_{16}O$. *See* c742	128.22	pr λ^{neut} 333 (3.40)	34.5–5.0	166 67^{16}	0.9227_4^{25}	1.4633^{20}	δ	...	...	...	s	peth s	B6²,26
c753	—,2-ethyl- (*cis, dl*)*	$C_8H_{16}O$. *See* c742	128.22	.....	.....	$180–2^{760}$ 74^{12}	0.9274_4^{21}	1.4655^{21}	i	...	s	s	s	oos v peth s	B6²,26
c754	—,—(*trans, dl*)*	$C_8H_{16}O$. *See* c742	128.22	.....	.....	79^{12}	0.9193_4^{21}	1.4640^{21}	i	...	s	s	s	oos v peth s	B6²,26
Ω c755	—,1-ethynyl-*	$C_8H_{12}O$. *See* c742	124.19	cr (peth)	31–2	174^{760} 73^{12}	0.9873_4^{20}	1.4822^{20}	i	s	...	...	s	peth s	B6²,100
c757	—,2(1-hydroxy-ethyl)-*	$C_8H_{16}O_2$. *See* c742	144.22	.....	.....	140^{12}	0.976_4^{20}	1.4900^{20}	i	...	...	...	...	oos v	CS0, 1299
—	—,2-isopropyl-5-methyl-*	*see* Neoisomenthol													
Ω c758	—,1-methyl-*	$C_7H_{14}O$. *See* c742	114.19	.....	25	155^{760} 70^{23}	9.9194_4^{20}	1.4595^{20}	i	s	...	...	s	chls	B6¹,16
Ω c759	—,2-methyl-(*cis, dl*)*	$C_7H_{14}O$. *See* c742	114.19	.....	7 (−4)	165 60^{12}	0.9360_4^{20}	1.4640^{20}	δ	∞	s	...	...	.....	B6²,20
c760	—,—(*trans, d*)*	$C_7H_{14}O$. *See* c742	114.19	$[\alpha]_D^{20.3}$ +17.19 (undil)	.....	166 78^{20}	0.9454_4^{20}	1.4610^{20}	δ	∞	s	...	...	.....	B6²,18
Ω c761	—,—(*trans, dl*)*	$C_7H_{14}O$. *See* c742	114.19	.....	−4.3 to −3.7	$167.2–7.6$ 78^{20}	0.9247_4^{20}	1.4616^{20}	δ	∞	s	...	...	.....	B6²,18
c762	—,—(*trans, l*)*	$C_7H_{14}O$. *See* c742	114.19	$[\alpha]_D^{9}$ −35.5 (undil)	.....	166^{760} 78^{20}	0.9454_4^{20}	1.4610^{20}	δ	∞	s	...	...	.....	B6²,18
Ω c763	—,3-methyl-(*cis, l*)*	$C_7H_{14}O$. *See* c742	114.19	$[\alpha]_D^{22}$ −4.75 (undil)	−4.7	174–5 94^{12}	0.9155_4^{20}	1.4574^{20}	δ	∞	∞	...	...	.....	B6²,20
Ω c764	—,—(*trans, l*)*	$C_7H_{14}O$. *See* c742	114.19	$[\alpha]_D^{20}$ −7.3 (undil)	−1	$174–5^{762}$ 84^{13}	0.9214_4^{20}	1.4590^{20}	δ	∞	v	...	...	.....	B6²,20
Ω c765	—,4-methyl-(*cis*)*	$C_7H_{14}O$. *See* c742	114.19	.....	−9.2	$173–4^{760}$ $78–9^{20}$	0.9170_4^{20}	1.4614^{20}	δ	∞	s	...	...	.....	B6²,22
Ω c766	—,—(*trans*)*	$C_7H_{14}O$. *See* c742	114.19	.....	.....	$173–4^{760}$ 54^{3}	0.9118_4^{21}	1.4561^{20}	δ	∞	s	...	...	.....	B6²,22
Ω c767	—,2-phenyl-(*cis, dl*)*	$C_{12}H_{16}O$. *See* c742	176.24	.....	41–2 (56)	140–1[16]	1.035^{16}	1.5415^{16}	...	...	...	...	...	.....	B6²,348
Ω c768	—,—(*trans, dl*)*	$C_{12}H_{16}O$. *See* c742	176.24	cr (peth)	56–7	152–5[16]	.....	.....	...	s	...	...	...	chls	B6²,348
Ω c769	—,2,2,6,6-tetra kis(hydroxy-methyl)-*	$C_{10}H_{20}O_5$. *See* c742	220.27	pl (al)	131	.....	.....	.....	v	v	i	i	i	MeOH v, Pys s	B6¹,151
c770	—,1,2,2-tri-methyl-(*dl*)*	$C_9H_{18}O$. *See* c742	142.24	cr (+ ¼w)	41 (hyd)	81.4–1.8[20]	0.9230_4^{20}	1.4682^{20}	i	s	s	...	s	oos s	B6¹,16
c771	—,1,2,6-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	.....	.....	78^{23}	0.9126_4^{15}	1.4598^{15}	i	s	s	s	s	oos s	B6¹,17
c772	—,1,3,3-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	pr (dil al)	74	.....	.....	.....	i	v	s	s	s	oos v	B6¹,16
c773	—,1,3,5-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	.....	.....	181 $82–3^{19}$	0.8876_4^{17}	$1.454^{16.3}$	i	s	s	...	...	chls	B6¹,17
c774	—,1,4,4-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	hyg nd (dil al)	58	$79–80^{15}$	.....	.....	i	s	s	...	...	chls	B6¹,16
c775	—,2,2,3-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	.....	.....	$85–7^{15}$	.....	.....	i	s	s	...	...	chls	B6¹,16
c776	—,2,2,5-tri-methyl-*	Pulenol. $C_9H_{18}O$. *See* c742	142.24	.....	.....	$187–9^{760}$ $90–2^{23}$	0.8955_4^{20}	1.4569^{20}	i	s	...	...	...	oos s	B6²,22
c777	—,2,2,6-tri-methyl-(liquid)*	$C_9H_{18}O$. *See* c742	142.24	.....	.....	$186–7^{753}$	0.9128_4^{20}	1.4600^{20}	i	s	s	...	...	chls	B6¹,16
c778	—,—(solid)*	$C_9H_{18}O$. *See* c742	142.24	cr (peth or al)	51	87^{28}	.....	.....	i	s	s	...	...	chls	B6¹,16
c779	—,2,3,3-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	nd	28	197 97^{19}	.....	.....	i	v	...	v	...	oos v	B6¹,16
c780	—,2,3,6-tri-methyl-*	$C_9H_{18}O$. *See* c742	142.24	.....	.....	$193–5^{747}$	0.9117_4^{17}	.....	i	s	...	...	...	chls	B6,22
c781	—,2,4,5-tri-methyl-(*cis*)*	$C_9H_{18}O$. *See* c742	142.24	hyg	.....	$191–3^{760}$ 84^{17}	0.9120_4^{20}	1.463^{20}	i	s	s	...	...	chls	B6¹,16
c782	—,—(*trans*)*	$C_9H_{18}O$. *See* c742	142.24	hyg	.....	196^{760} 112^{35}	0.906_4^{20}	1.461^{20}	i	s	s	...	...	chls	B6¹,16
Ω c783	—,3,3,5-tri-methyl-(*cis*)*	*cis*-Dihydroisophorole. $C_9H_{18}O$. *See* c742	142.24	.....	37.3	$201–3^{750}$ 92^{12}	0.9006_4^{16}	1.4550^{16}	i	s	s	...	...	chls	B6¹,16
Ω c784	—,—(*trans*)*	$C_9H_{18}O$. *See* c742	142.24	cr (eth)	55.8	189.2^{760}	0.8643_{20}^{60}	.....	i	s	s	...	...	chls	B6¹,16
Ω c785	Cyclohexanone*	Ketohexamethylene. Pimelic ketone.	98.15	λ^{al} 284(1.26)	−16.4 (−45)	155.65^{760} 47^{15}	0.9478_4^{20}	1.4507^{20}	s	s	s	s	s	chls	B7²,15
Ω c786	—oxime*	$C_6H_{11}NO$. *See* c785	113.16	hex pr (lig)	90	206–10	.....	.....	s	s	s	...	...	MeOH s	B7²,10
c787	—,2-acetyl-	$C_8H_{12}O_2$. *See* c785	140.19	λ^{al} 290 (3.95)	.....	$111–2^{18}$	1.0782^{0}	1.5138^{20}	...	...	...	...	...	.....	B7²,530
Ω c788	—,2-butyl-*	$C_{10}H_{18}O$. *See* c785	154.26	.....	.....	70^{2}	0.9052^{20}	1.4545^{20}	i	...	...	...	...	oos v	Am 78, 5319
Ω c789	—,2-butylidene-	$C_{10}H_{16}O$. *See* c785	152.24	.....	.....	$98–100^{10}$ (95–100[5])	0.9352^{20}	1.4800^{20}	i	s	v	s	v	oos v	C49, 1594
Ω c790	—,2-chloro-*	C_6H_9ClO. *See* c785	132.59	λ^{al} 294(1.38)	23	82^{13}	1.1612_{15}^{20}	1.4825^{20}	...	...	s	...	s	diox s	B7¹,11
c791	—,3-chloro-*	C_6H_9ClO. *See* c785	132.59	.....	.....	$91–2^{14}$	.....	.....	...	...	s	...	...	.....	B7¹,10
c792	—,4-chloro-*	C_6H_9ClO. *See* c785	132.59	.....	.....	95^{17}	.....	1.4867^{20}	...	...	s	...	...	.....	B7¹,11
c793	—,2,6-dibenzyl-idene-	$C_{20}H_{18}O$. *See* c785	274.37	ye nd (al) λ^{al} 330 (4.40)	117–8	185–95[20]	.....	.....	...	δ	...	...	s	aa s	B7¹,465

For explanations, symbols and abbreviations see beginning of table. For structural formulas see end of table.